

## Information for patients and their relatives about treatments for stroke in the first few hours

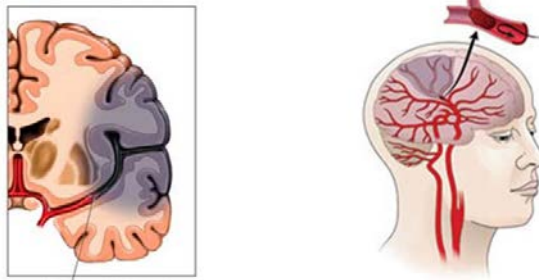
Most strokes are due to a blood clot blocking an artery which carries blood to part of the brain. These are called “Ischaemic strokes”.

When the artery blocks, the brain cells don't receive enough blood to continue to function normally and the person develops symptoms of a stroke – such as drooping on one side of the face, weakness of an arm and/or a leg and problems with speech.

The larger the artery which blocks, the larger the area of brain affected, and the more severe the symptoms.

The longer the artery remains blocked, the greater the brain damage, and the worse the patients' recovery. Many patients have long term disability and may not be able to look after themselves.

Stroke due to a blocked artery (ischaemic)



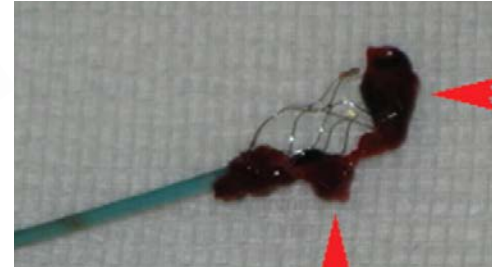
If the artery can be unblocked within the first few hours, the permanent brain damage can be reduced. The earlier the artery is unblocked, the better the chances of a good recovery.

A medication - **thrombolysis** - given by an injection into a vein, can dissolve the blood clot and open up the artery – “a bit like the chemical you might use to unblock a drain” Thrombolysis can unblock both large and small arteries. It has to be given within 4.5 hours of the first symptoms and cannot currently be used in people:

- where the time of onset is unclear – for instance, on waking from sleep
- with recent bleeding, trauma or a surgical operation
- taking anticoagulant medications including warfarin, apixaban, rivaroxaban, dabigatran or edoxaban

On average thrombolysis treatment is 10 times more likely to help than to harm. However, approximately 1 in 15 patients who receive thrombolysis develop bleeding (haemorrhage) in the brain; this type of bleeding can be fatal.

A procedure – **thrombectomy** - carried out in an operating theatre, sometimes under a general anaesthetic, physically removes the clot to open up the artery. This involves inserting a thin flexible tube into an artery in the top of the leg, passing it through the arteries to the blockage in the brain and using a wire net (stentriever), or suction to remove the clot – a bit like “Dyno-Rod” for the brain. However, thrombectomy is only possible if the blocked artery is large and visible on a brain scan.



Thrombectomy is most effective if carried out within the first few hours but can help selected patients even if given later within the first day.

Thrombolysis and thrombectomy can be given alone or together. Thrombectomy in combination with thrombolysis is much more effective than thrombolysis alone.

Both thrombolysis and thrombectomy require care in a hospital with special facilities. Thrombolysis can be given in any hospital with an acute stroke unit and brain scanner. Thrombectomy can only be given in a hospital with doctors who can perform the procedure. It may therefore be necessary to rapidly transfer a patient from their local hospital to a more specialist hospital, or even to take them directly to a specialist hospital.



Thrombectomy is not suitable for all patients because:

- only about 10 percent of patients with acute ischemic stroke have a large artery blockage.
- only a very few hospitals currently have facilities and doctors to carry out the thrombectomy but it will become more widely available over the next few years.